

A new culture of the subfamily Pachymorphinae from Thailand

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Abstract

This paper describes the male and female adults of PSG 179 an unidentified species from the subfamily Pachymorphinae from Thailand. Adults and egg are illustrated, with a general report of nymphs, defensive features and foodplants.

Key words

Phasmida, Pachymorphinae, Thailand, Foodplants, Egg.

Culture Origin

This species was collected by Barry Clarke in November 1995 from Thailand. It was found in the area between Pattaya Town and the Cambodian border at sea level, resting in grassland. The species was caught with another similar but distinct species. One pair of each species was brought back, both laying a few eggs before dying. All of the eggs laid by this species hatched and have produced enough insects to be shared between the collector and myself. The pair that has been given to me is described below.

Female (figure 1)

The female has a body length of 80mm, with the total length including the legs being 150mm. The antennae are short (5mm) and are very similar to *Bacillus rossius* and are a dark pink in colour. The head is considerably longer than wide, and the eyes are small and black.

The body is green: with the dorsal surface dark green, and the ventral surface much lighter. The legs are long and slender. The trochanter is a pinky-red colour. The first tarsal segment on all of the legs is considerably longer than the other tarsomeres. The cerci are also quite long, and play an important role in egg laying; they are used to position the egg.

Male (figure 2)

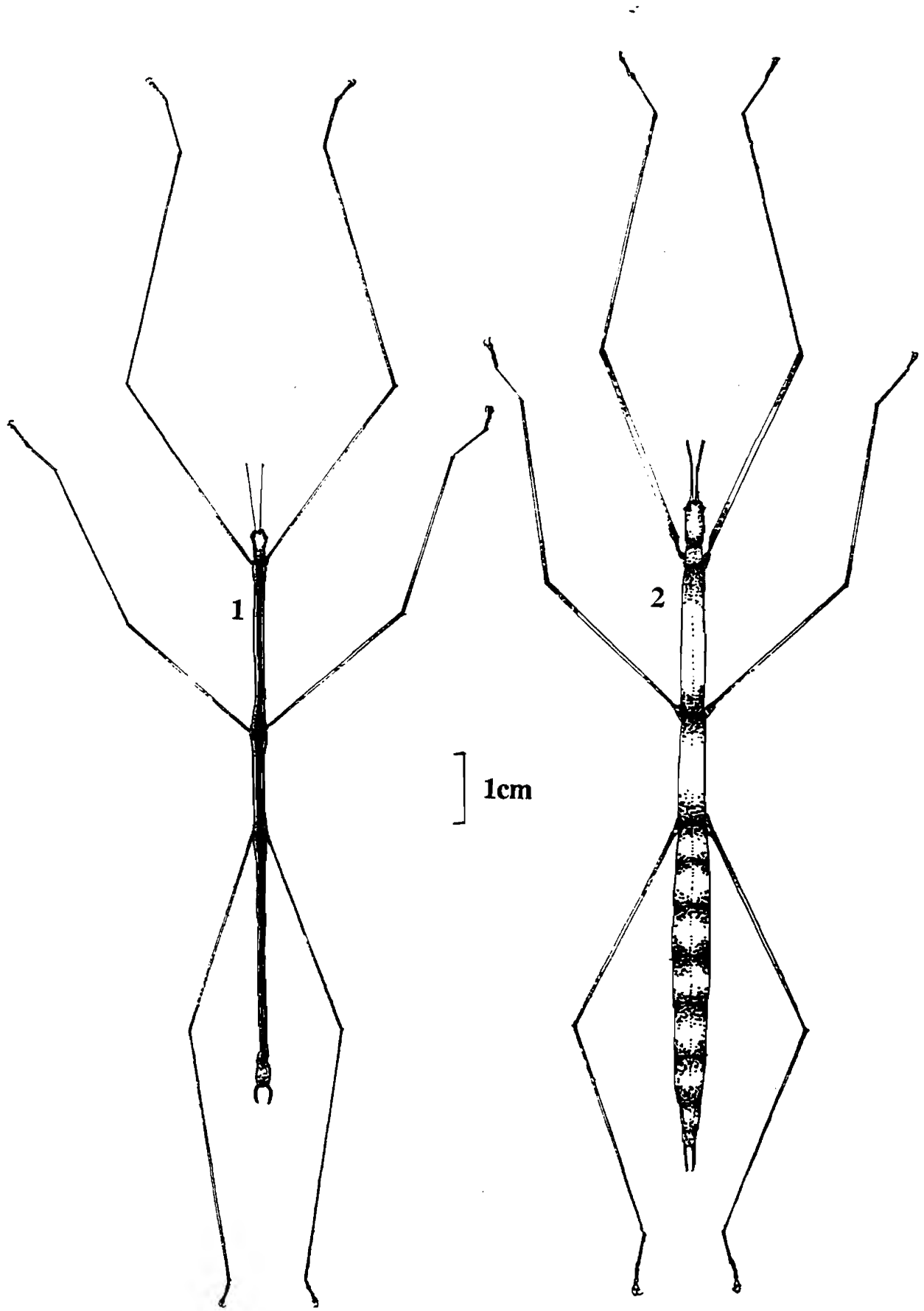
The male has a body length of 75mm, with a total length (including the legs) of 150mm. The antennae are longer than the female's, but are still quite short, being only 10mm. The body and head are a light brown colour, with black longitudinal stripes on the dorsal surface. The light brown turns a dark rosewood-red at night. The legs are again long and slender, and are an attractive shade of olive-green.

The head is similar to the female's, but much slimmer. Once again, the first tarsal segment is considerably longer than the other tarsomeres. The cerci are long and pincer-like, and are used to clasp the female during mating.

Eggs (figure 3)

The eggs are brown with a rough surface. They are 8mm long, with the maximum width being 1mm. They taper towards the polar end and the operculum has a number of small spines around the rim in a sort of "crown". The micropylar plate stretches along the whole length of the egg and is glued to the surface with an adhesive produced during oviposition. Hatching occurs after a short time and was recorded as soon as 4-6 weeks by the collector. Eggs need to be kept warm and humid if they are to do well; Barry had a 100% hatch rate!

Two methods of laying have been observed; most eggs being laid directly onto the stems of the foodplant. The female lays the eggs by secreting an adhesive liquid from the tip of the abdomen onto the surface to which the egg is applied. One method is with the micropylar plate down, the whole of the egg being flush to the stem. The other is with the polar end only attached to the stem, with the egg pointing upwards at an angle of approximately twenty degrees.



Figures 1 & 2. PSG 179: adult male and female.

Nymphs

Newly hatched nymphs are very similar to *Baculum thaili*, but are a light green. As they develop, the males may be distinguished because they are slimmer. The nymphs are 12-15mm when hatched. The time it takes for the insect to become fully mature is estimated at around 6 months, with the whole life cycle taking around 10 months. Males become adult before females.

Defences

These insects are very docile and usually do not move when disturbed. If they become frightened they can run at great speed or exude a yellowish liquid from their mouths.

Rearing

Bramble (*Rubus* sp.) seems to be the most successful food plant, but the insect will accept rose (*Rosa* sp.), Sweet Chestnut (*Castanea sativa*), raspberry (*Rubus ideaus*) and oak (*Quercus* sp.). These are the only plants tried.

The insects prefer to be kept warm, but will do quite well at room temperature. Newly hatched nymphs need to be kept with older insects to help them feed, but once past the 1st instar they feed well. This species should be kept moderately humid. The culture has recently been added to the Phasmid Study Group's species list as PSG 179.

Acknowledgements

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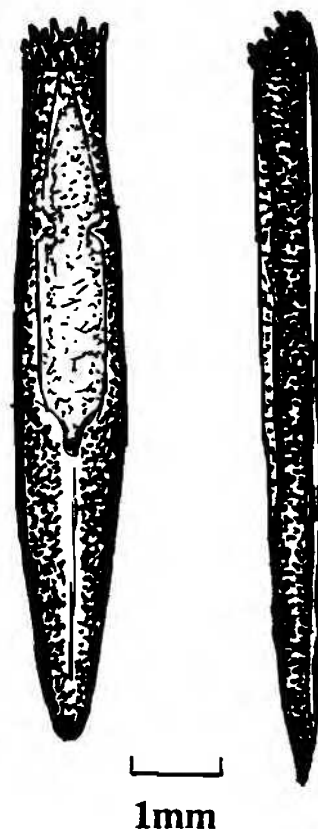


Figure 3. Egg, dorsal and lateral views.